Seizure 18 (2009) 84

Contents lists available at ScienceDirect

Seizure

journal homepage: www.elsevier.com/locate/yseiz

Letter to the Editor

Successful treatment of intractable post-ictal psychosis with adjunctive ethosuximide

Dear Editor,

Here we describe a patient with intractable epilepsy and post-ictal psychosis, successfully treated with adjunctive ethosuximide.

X is a 37-year-old gentleman (weight 104 kg) with cryptogenic localization-related epilepsy and post-ictal psychosis. He first developed epilepsy after sustaining a head injury as a teenager; this led to regular and persistent complex partial seizures despite different combinations of anti-epileptic and psychotropic medication (including topiramate; levetiracetam; carbamazepine; phenytoin; haloperidol; clobazam; diazepam; risperidone; and pregabalin) as well as tertiary specialist input.

Psychiatric symptoms in X developed four years ago when, in an attempt to treat his epilepsy, a person claiming to be an Ayurvedic practitioner (whom was subsequently arrested) prescribed what was believed to be a herbal medication in place of X's anti-epileptic medication. The new medication on subsequent analysis was found to contain a mixture of carbamazepine, phenobarbitone, phenytoin, and a number of other drugs including neuroleptics; one of which has previously been licensed for animal-use and is now banned. Unfortunately, the epilepsy persisted with the added complication of post-ictal psychosis. Understandably, this led to a loss of self-confidence in X as his social and functional performance declined.

X initially experienced tonic–clonic convulsions alone; however, over the last year these have evolved into absence (petit mal) episodes occurring at least twice-weekly. During each episode X would appear vacant and detached for several minutes; this is followed by several hours of threatening behaviour, characterized by paranoid and grandiose delusions. After each episode, X would fall into a deep sleep then awake with little recollection of the event. This occurred despite treatment with carbamazepine-MR 1000 mg OD; phenytoin 150 mg mané, 200 mg nocté; topiramate 200 mg BD; risperidone 4 mg mané, 5 mg nocté; and lorazepam 1 mg BD, 2 mg BD, concurrently. Investigations at this time revealed an EEG report that frontal regions featured an arrhythmic delta slow wave activity admixed to the ongoing rhythms, explicable in terms of anti-epileptic medication and psychotropic medication. In addition, sharp wave discharges, which featured, were lateralised to the left hemisphere field being inferior frontal/anterior temporal. Secondly, a CT brain scan showed no significant asymmetry, anomaly nor abnormality of the intracranial content with no evidence of any intracranial haemorrhage or haematoma: an essentially normal report.

Two months prior to writing, a trial of adjunctive ethosuximide was begun which immediately produced a favourable result; this involved the introduction of ethosuximide at 500 mg daily followed by an increase to 500 mg BD, over a 2-week period. Since its commencement, X has remained seizure- and psychosis-free apart from one brief episode triggered by extreme stress. This has facilitated an improvement in both his psycho-social performance and in his self-esteem.

Psychosis following seizure activity is well-established in the medical literature. Esquirol described post-ictal "fury" lasting from hours to days in his textbook of psychiatry (1838)[4]; and Hughlings-Jackson reported "acute attacks of insanity (epileptic mania)" in patients.[1] The typical patient appears psychiatrically well until a cluster of tonic–clonic seizures, with or without complex partial seizures, occurs. After an initial post-ictal period marked by confusion and lethargy, the patient improves for hours to days (the lucid interval). Following this, psychosis develops and typically lasts days to weeks.[2] X is atypical in that his psychosis appears immediately after each absence episode and lasts for no more than a few hours.

Ethosuximide is the drug of choice for the control of seizures in absence epilepsy. However, psychiatric side effects, particularly in those with a history of mental health problems, have limited its use. These have included sleep disturbances, poor concentration, aggressiveness and, rarely, depression and paranoid psychosis.[3] Nonetheless, we suggest that ethosuximide may have a place as an adjunctive treatment for resistant post-ictal psychosis where breakthrough absence seizures predominate.

References

[1] Taylor J. *Selected writings of John Hughlings Jackson.* New York: Basic Books; 1958.
[2] Devinsky O. Postictal psychosis: common, dangerous, and treatable. *Epilepsy Curr* 2008;**8**(2):31–4.
[3] Gören M, Onat F. Ethosuximide: from bench to bedside. *CNS Drug Rev* 2007;**13**(2):224–39.
[4] Esquirol E. *Des maladies mentales considerées sous les rapports médical*. Paris, Ballière: Hygienique et Médico-Legal; 1838.

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2 July 2007

1059-1311/$ – see front matter
doi:10.1016/j.seizure.2008.08.006